Instruction 51-1204
8-11-09

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Installation Instructions for S&S Air Cleaner Kit 41-0021 for Victory® Freedom® Engines

DISCLAIMER:

S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways, especially in states where pollution laws may apply. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

The words Victory®, Victory Freedom®, and all Victory part numbers and model designations are used for reference only.

SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when breathed. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with a S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be breathed. Run motorcycle in a well ventilated area where fumes can dissipate.

IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.

WARNING

Means there is the possibility of injury to yourself or others.

CAUTION

Means there is the possibility of damage to the part or motorcycle.

NOTE

Other information of particular importance has been placed in italic type.

S&S recommends you take special notice of these items.

WARRANTY:

All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 12 month warranty period or within 10 days thereafter.

In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.

A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

ADDITIONAL WARRANTY PROVISIONS:

(1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
(2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
(3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.
(4) These S&S parts are designed exclusively for use in Victory motorcycles. S&S shall have no warranty or liability obligation if an S&S part is used in any other application.

⚠ WARNING

The safety of the motorcycle rider is dependent on proper installation of this product. If you are not certain of your capabilities or do not have the correct tools for this installation, please consult a shop to have it done. Improper installation of this product could result in injury or death to rider.

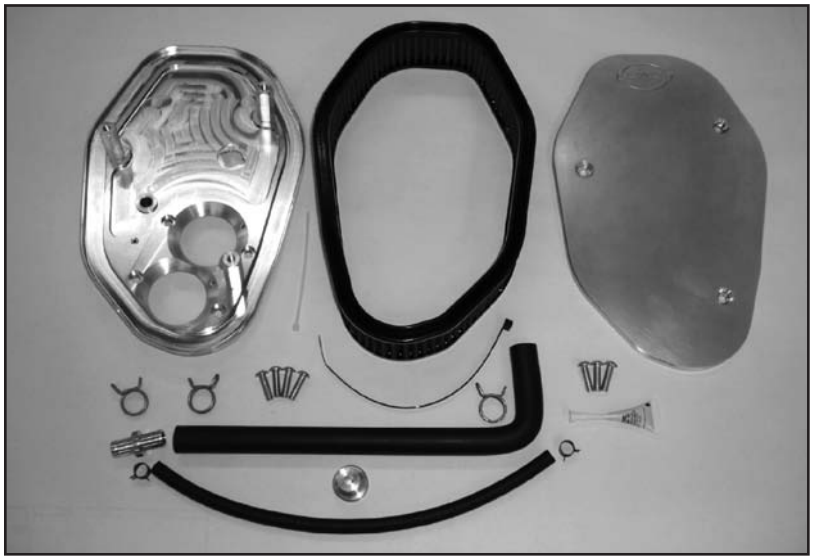
⚠ WARNING

Be sure to disconnect the battery of your motorcycle before starting on this procedure. Accidental starting of the motorcycle could cause injury to you or others around you during the installation.

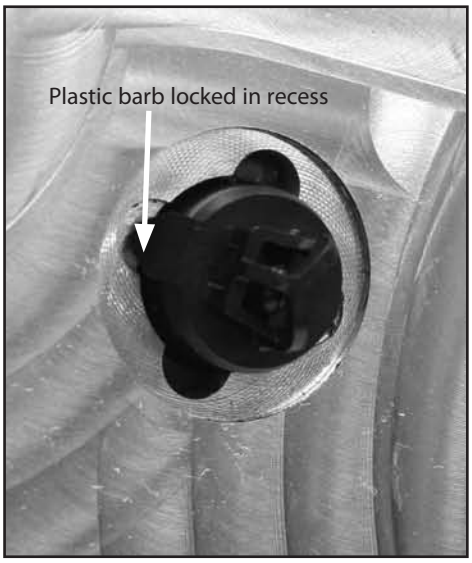
⚠ CAUTION

Follow the guidelines in your factory service manual when removing air box assembly from your motorcycle.

Following the Victory® service manual section **Engine Removal & Installation**, remove the stock Victory air box.



S&S Air Cleaner Assembly 41-0021 (Calibration card not shown)

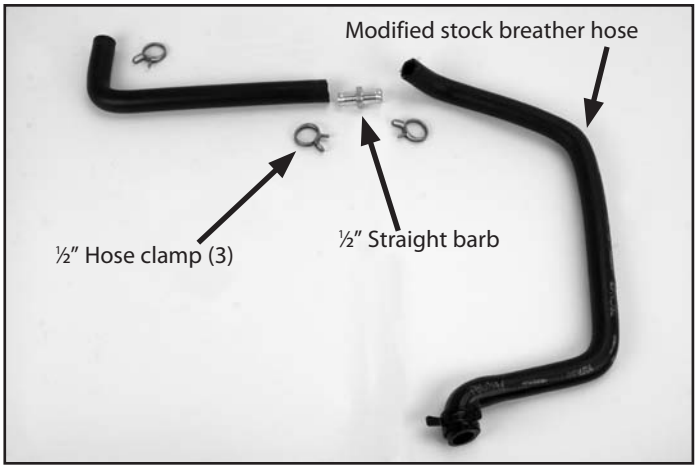


Picture 1

1- Locate and remove the Intake Air Temperature Sensor (IATS) from the stock Polaris Victory air box. Locate the new position for the IATS on the bottom of the S&S air cleaner. Push the IATS in the lower air cleaner cover and turn ¼ turn in either direction, make sure you feel it lock into place. Inspect from the inside of the air cleaner to ensure that the barbs are locked into place. **See Picture 1.**
2- Using the stock Polaris Victory air box gasket (PN 5811908) and S&S supplied (Qty 4) M6 fasteners, assemble the lower air cleaner cover to the throttle body using 243 Blue Loctite® on the treads. Torque the M6 fasteners to 72-96 inch pounds.
3- Position the S&S pre-formed air filter onto the lower air cleaner cover ensuring that it fits into the machined groove.
4- Install the top air cleaner cover on top of the filter ensuring that it fits into the machined groove.
5- Make sure that the filter is situated in the machined grooves on both the top and bottom air cleaner covers.
6- Using 243 Blue Loctite on the threads of the S&S supplied (Qty 3) M6 fasteners tighten down top air cleaner cover evenly until seated. Finish torque the fasteners to 72-96 inch pounds. Now you're ready for breather hose and barometric pressure hose routing.
7- Locate the S&S supplied 3⁄16" reinforced hose and clamps. Push one end of the hose on the 3⁄16" brass barb in the bottom air cleaner cover and slide clamp up around the end of the hose. The other end of the hose is for the Barometric Pressure Sensor (MAP). Route the hose toward the back of the engine over the top of the rear rocker cover.
8- Remove the MAP sensor from the stock Polaris Victory air box. Remove the orange rubber gasket from the MAP sensor. Slide the S&S supplied clamp over the 3⁄16" rubber hose that leads to the air cleaner. Push the barbed end of the MAP sensor into the 3⁄16" rubber hose and slide clamp up to the end of the hose around the barb. A small amount of lubricant may be applied to the barb on the MAP sensor to make installation easier.

9- Assemble and install breather hose as follows:

Picture 2



Breather hose layout

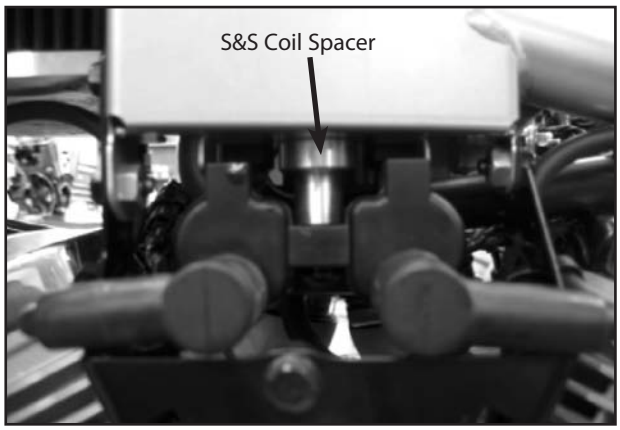
A- Cut the stock Victory® hose on the straight section just behind the 90 degree bend as shown in Picture 2.
B- Slide an S&S supplied ½" hose clamp over the modified stock breather hose.
C- Install the S&S straight barb in Victory breather hose and position a hose clamp around hose end.
D- Slide the 90-degree end of breather hose over the brass barb on the air cleaner cover and slide hose clamp in place.
E- Position straight end of the S&S breather hose over the ½" barb to connect to the Victory hose. Slide clamp over connection.
F- **See Pictures 3 and 4** for breather hose and barometric pressure sensor hose installation positions.

NOTE: *S&S breather hose can be cut for best fit.*

Picture 3

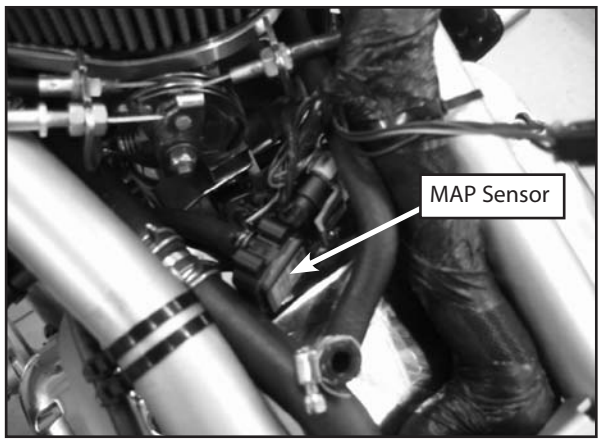
Picture 4

10- The S&S aluminum spacer replaces the stock Victory spacer between the frame and coil to ensure sufficient clearance between the air cleaner and coil wires. **See Picture 5**.

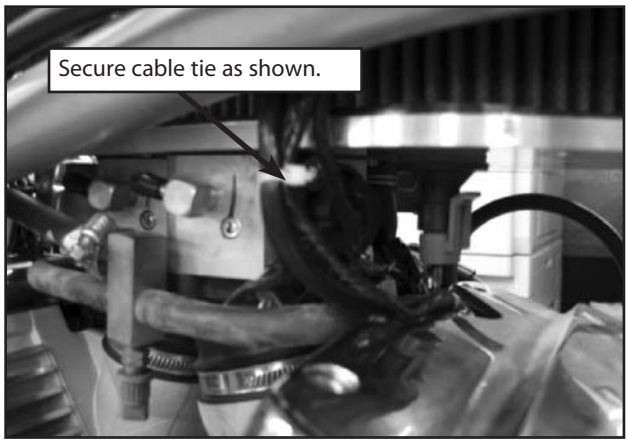


Picture 5

11- Using the supplied 8"cable tie, secure the MAP sensor to the injector and coil wires as shown in **Picture 6.**

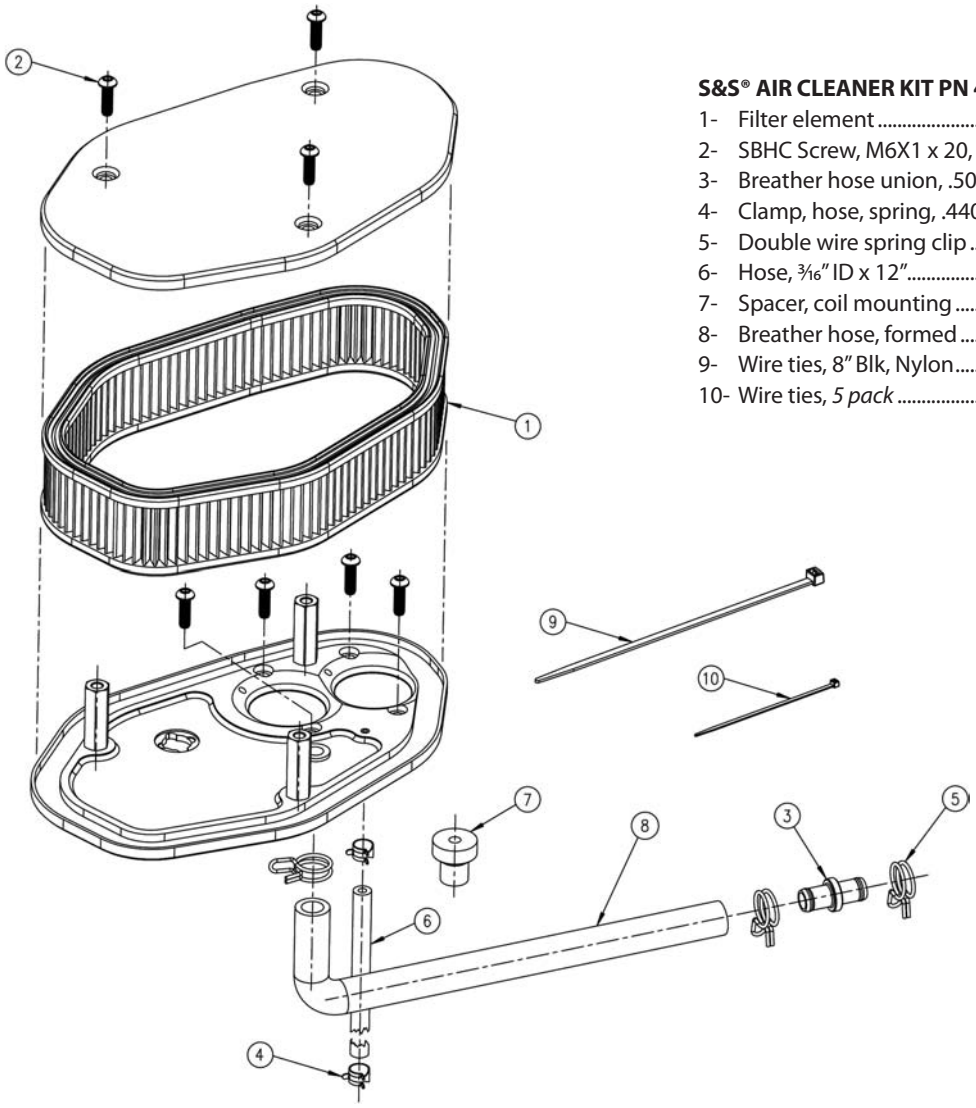


Picture 6



Picture 7

12- Using the supplied 4" cable tie, secure IATS and Throttle Position Sensor wires as shown in **Picture 7**.
13- Install remaining parts, reversing the order of removal and following instructions in your Victory service manual section Engine Removal & Installation.
14- Reprogramming the Engine Control Module (ECM) must be done by an authorized S&S/Victory® dealer using S&S Freedom® Performance Tuner which is available to authorized S&S/Victory dealers only. The S&S Freedom Performance Tuner comes complete with instructions for ECM re-programming.
15- Test drive vehicle to ensure proper operation and verify that there are no leaks.



S&S® AIR CLEANER KIT PN 41-0021 FOR VICTORY®

1- Filter element 41-0006
2- SBHC Screw, M6X1 x 20, *10 pack* 50-8421
3- Breather hose union, .500" ID 41-0008
4- Clamp, hose, spring, .440" DIA 50-8143
5- Double wire spring clip 50-8156
6- Hose, 3⁄16" ID x 12" 41-0015
7- Spacer, coil mounting 41-0011
8- Breather hose, formed 41-0012
9- Wire ties, 8" Blk, Nylon 50-8346
10- Wire ties, *5 pack* 50-8181